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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/592,967

09/14/2006

Shigeki Satou

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07/15/2010

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC

701 FIFTH AVE

SUITE 5400

SEATTLE, WA 98104

EXAMINER

PAK, HANNAH J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

07/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/592,967	Applicant(s) SATO ET AL.	
	Examiner Hannah Pak	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. It is noted that the applicants cancelled claims 1 and 2, and thus, the pending claims are now claims 3 and 4.
2. No new grounds of rejection are set forth below. Accordingly, the following action is properly made final.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donohue et al. (US 4,959,330) in view of Non-Patent Literature ("Terpinyl Acetate." Material Data Sheet. Chemtex International Inc., 1 April 2003, Pages 1-5) and Kobayashi (Machine Translation of JP 09-124771).

The rejection is adequately set forth in Pages 4-6 of Office action mailed on to 01/26/2010 and is incorporated here by reference.

Response to Arguments

4. The applicants' arguments filed 04/26/2010 are fully considered but are not found persuasive for the following reasons below:

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(A)

Applicants' Argument: The applicants contend that there is no reason or motivation to employ an ethyl cellulose having the claimed weight average molecular weight in the dielectric paste (see Pages 3-4 of the Applicants' Remarks). According to the applicants, the selection of the ethyl cellulose binder having the weight average molecular weight appropriate for dielectric paste requires impermissible hindsight (see Page 4 of the Applicants' Remarks).

Examiner's Response: This contention is not convincing. As indicated in the previous office action, Donohue et al., like the applicants, employ an ethyl cellulose binder which is useful for a dielectric paste. Donohue et al.'s description of the ethyl cellulose binder is also inclusive of the claimed ethyl cellulose binder. Moreover, it can be inferred from the disclosure of other polymeric binders having an average molecular weight of 150,000-350,000 that the optimum average molecular weight of the ethyl cellulose binder lies in a similar average molecular weight range at Col. 6, lines 10-40 of Donohue et al. More importantly, however, Donohue et al., by virtue of not specifying the average molecular weight of their ethyl cellulose binder leaves the selection of such binder having the optimum or workable molecular weight useful for dielectric pastes up to one of ordinary skill in the art. Thus, contrary to applicants' contention, one of ordinary skill in the art would have been prompted to select ethyl cellulose binders having the optimum or workable molecular weight useful for the dielectric paste, such as those claimed, via routine experimentation, as indicated in the previous office action, *see MPEP § 2144.05, IIB*. The applicants have also not shown that one of ordinary skill

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in the art interested in forming dielectric pastes would have been led away from the ethyl cellulose binder having the claimed weight average molecular weight. Nor have the applicants shown that the use of the ethyl cellulose having the claimed weight average molecular weight imparts unexpected results.

(B)

Applicants' Argument: **(1)** The applicants argue that Donohue et al. discloses a laundry list of suitable solvents at Col. 5, lines 21-26, none of which are the claimed solvents (see Page 5 of the Applicants Remarks). **(2)** The applicants also argue that Donohue et al. discloses the beta-terpineol solvent as a preferred solvent, which according to applicants causes voids, fissures, or wrinkles (see Page 5 of the Applicants' Remarks). Thus, Donohue et al.'s preferred solvent (e.g. beta-terpineol) teaches away from the present invention (see Page 5 of the Applicants' Remarks).

Examiner's Response: **(1)** The laundry list of solvents disclosed in Donohue et al. are examples of solvents used. However, the prior art is not limited to its examples. Moreover, Donohue et al. mention broadly using other types of solvents outside those listed having a boiling temperature of 130-350 degrees Celsius at Col. 5, lines 25-32, but do not specify the other types of solvents as one of the claimed solvents. The non-patent literature teaches using a conventional solvent, such as that claimed, i.e., terpinyl acetate having a boiling point temperature of 209 degrees Celsius. Thus, the collective teachings of Donohue et al. and the non-patent literature would have suggested using the claimed solvent, i.e., terpinyl acetate. **(2)** As indicated by the applicants and disclosed in Donohue et al., the beta-terpineol solvent is a preferred solvent. And

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again, the prior art is not limited to its examples. Moreover, the applicants allegedly disclose that the beta-terpineol solvent causes all sorts of disadvantages, but do not point to any factually supported objective evidence. Thus, such statements are treated as merely conclusory statements, see MPEP § 2145.

(C)

Applicants' Argument: **(1)** The applicants argue that neither the non-patent literature nor Kobayashi cure the deficiencies of Donohue et al. (see Page 4 of the Applicants' Remarks). **(2)** The applicants also argue that one of ordinary skill in the art of multi-layered ceramic electronic components would not look to Kobayashi to formulate a ceramic green sheet having the claimed properties (see Pages 5-6 of the Applicants' Remarks).

Examiner's Response: **(1)** While the non-patent literature and Kobayashi do not disclose all the features of the claimed invention, they are utilized as teaching references and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention. Rather, these references teach a certain concept and in combination with the other reference, disclose the presently claimed invention. **(2)** Kobayashi discloses using butyral resins having the claimed properties in dielectric films useful for electronic components, which can be inclusive of the claimed electronic component and dielectric paste, to obtain advantages, such as excellent storage stability. Thus, contrary to the applicants' argument, as indicated in the previous office action, it would have been obvious to one of ordinary skill in the art to employ the butyral resins having the claimed properties taught by Kobayashi in the

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dielectric film of the type discussed in Donohue et al. with a reasonable expectation of successfully obtaining desired properties.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hannah Pak whose telephone number is (571)270-5456. The examiner can normally be reached on Monday - alternating Fridays (7:30 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hannah Pak
Examiner
Art Unit 1796

/HP/

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796